	Application No.	Applicant(s)
Notice of Allowability	10/827,550	SMITH ET AL.
	Examiner	Art Unit
	Roger L. Pang	3681
Roger L. Pang 3681 The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. ☑ This communication is responsive to the amendment filed on 4-25-06. 2. ☑ The allowed claim(s) is/are 2-9 and 11-169. 3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		
 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. 		
Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ⊠ Interview Summary Paper No./Mail Dat 8), 7. ⊠ Examiner's Amendr	te <u>5-18-06</u> .

DETAILED ACTION

The following action is in response to the amendment filed for application 10/827,550 on April 25, 2006.

EXAMINER'S AMENDMENT

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: In Fig. 3, "PSSINT" should be replaced with --PCOINT-- (see attached drawing with changes in red). In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Allowable Subject Matter

Claims 2-9, 11-16, 18-26, and 37-45 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to show or render obvious the torque biasing system comprising a control module that generates a control signal based on a torque command and a calculated torque, said calculated torque based on an armature position signal (of the torque biasing system), temperature signal and a current signal, and including the remaining controls of claims 4 and 12, respectively. The present invention also particularly includes a calculated torque based on a clutch pack temperature signal, and including the remaining controls of claims 5 and 13, respectively. The present invention also particularly includes a calculated torque based on a resistance force based on a second position signal generated by the clutch operator module, clutch data, a clutch temperature and clutch kiss point data, and including the remaining controls of claims 9 and 16,

respectively. The present invention also particularly includes a calculated torque based on a calculated interconnection position of the clutch, and including the remaining controls of claims 37-40, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lu, Sardar and Marcinkiewicz have been cited to show similar clutch and motor controls.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner
Art Unit 3681

May 18, 2006

Title: MODEL-BASED CONTROL FOR TORQUE BIASING SYSTEM
First Named Inventor: William E. Smith
Attorney: Philip E. Rettig - Harness, Dickey & Pierce, P.L.C. - Reg. No. 34,000
Attorney Docket No.: 6978-000276

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